

ABSTRACT OF THE DISCLOSURE

A method and apparatus for generating membrane targets for a laser induced plasma is disclosed herein. Membranes are advantageous targets for laser induced plasma because they are very thin and can be readily illuminated by high-power coherent light, such as a laser, and

5 converted into plasma. Membranes are also advantageous because illumination of the membrane with coherent light produces less debris and splashing than illumination of a thicker, solid target. Spherical membranes possess additional advantages in that they can be readily illuminated from variety of directions and because they can be easily placed (i.e. blown) into a target region for illumination by coherent light. Membranes are also advantageous because they can be formed

10 from a liquid or molten phase of the target material. According to another embodiment, membranes can be formed from a solution in which the target materials are solvated. Membranes can be formed an a variety of ways, such as by rotating a circular apparatus through a reservoir of liquid target material such that membranes form across apertures that are disposed in the circular apparatus. Spherical membranes can also be formed by applying a gas (i.e.

15 blowing) against a membrane formed in an aperture of a circular apparatus.